

WHAT IS CLAIMED IS:

1. An image data recording apparatus comprising:
coding means for encoding image data using a
buffer memory;
- 5 buffer occupation amount detection means for,
upon coding by said coding means, detecting a code
amount of said image data occupying said buffer memory,
and outputting buffer information related to the
detected code amount of said image data; and
10 recording means for recording said coded image
data and said buffer information on a recording medium.
2. The image data recording apparatus according to
claim 1, wherein said buffer occupation amount
15 detection means outputs said buffer information for
every recording unit of said coded image data.
3. The image data recording apparatus according to
claim 2, further comprising error correction processing
20 means for performing error-correction coding processing
on said coded image data,
wherein said recording means performs interleave
processing by a plurality of error correction blocks
and performs recording, and wherein said buffer
25 occupation amount detection means outputs said buffer
information by said plurality of error correction
blocks for said interleave processing.

4. The image data recording apparatus according to claim 1, wherein said coding means encodes said image data by MPEG coding, with said buffer information as a value of a VBV (Video Buffer Verifier).
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5. The image data recording apparatus according to claim 3, wherein said coding means encodes said image data by MPEG coding, and wherein said buffer occupation amount detection means outputs said buffer information by GOP (Group Of Pictures).
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6. The image data recording apparatus according to claim 1, wherein said recording means records said coded image data and said buffer information in plural tracks formed on a tape type recording medium, such that said buffer information is recorded in a predetermined area of said plural tracks.
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- 20 7. The image data recording apparatus according to claim 1, wherein said coding means encodes said image data by intra-frame coding and inter-frame prediction coding.
- 25 8. The image data recording apparatus according to claim 1, wherein said coding means controls the code

amount of said image data based on said buffer information.

9. An image data recording apparatus which records
5 new image data, encoded by intra-frame coding and
inter-frame prediction coding, on a tape type recording
medium on which coded image data is already recorded,
comprising:

coding means for encoding image data using a
10 buffer memory;

style="padding-left: 40px;">buffer occupation amount detection means for,
upon coding by said coding means, detecting a code
amount of said image data occupying said buffer memory,
and outputting buffer information related to the
15 detected code amount of said image data; and

style="padding-left: 40px;">recording means for recording said coded image
data and said buffer information on said tape type
recording medium.

20 10. The image data recording apparatus according to
claim 9, further comprising reproduction means for
reproducing said image data and said buffer information
from said tape type recording medium,

wherein said coding means performs coding
25 processing on said new image data by using the buffer
information reproduced by said reproduction means.

11. The image data recording apparatus according to
claim 9, wherein said coding means controls the code
amount of said new image data based on the buffer
information reproduced from a position immediately
5 before a recording start position of said new image
data in said tape type recording medium.

12. An image data recording method comprising:
a coding step of encoding image data using a
10 buffer memory;
a buffer occupation amount detection step of,
upon coding at said coding step, detecting a code
amount of said image data occupying said buffer memory,
and outputting buffer information related to the
15 detected code amount of said image data; and
a recording step of recording said coded image
data and said buffer information on a recording medium.

13. An image data recording method for recording new
image data, encoded by intra-frame coding and inter-
frame prediction coding, on a tape type recording
medium on which coded image data is already recorded,
comprising:

a coding step of encoding image data using a
25 buffer memory;
a buffer occupation amount detection step of,
upon coding at said coding step, detecting a code

amount of said image data occupying said buffer memory,
and outputting buffer information related to the
detected code amount of said image data; and
a recording step of recording said coded image
5 data and said buffer information on said tape type
recording medium.

14. A computer program for realizing an image data
recording method by a computer, having program code
10 corresponding to:
a coding step of encoding image data using a
buffer memory;
a buffer occupation amount detection step of,
upon coding at said coding step, detecting a code
15 amount of said image data occupying said buffer memory,
and outputting buffer information related to the
detected code amount of said image data; and
a recording step of recording said coded image
data and said buffer information on a recording medium.
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15. A computer program for realizing by a computer an
image data recording method for recording new image
data, encoded by intra-frame coding and inter-frame
prediction coding, on a tape type recording medium on
25 which coded image data is already recorded, having
program code corresponding to:

a coding step of encoding image data using a buffer memory;

a buffer occupation amount detection step of, upon coding at said coding step, detecting a code 5 amount of said image data occupying said buffer memory, and outputting buffer information related to the detected code amount of said image data; and a recording step of recording said coded image data and said buffer information on said tape type 10 recording medium.

16. A storage medium holding a computer program for realizing an image data recording method by a computer, wherein said computer program having program code 15 corresponding to:

a coding step of encoding image data using a buffer memory;
a buffer occupation amount detection step of, upon coding at said coding step, detecting a code 20 amount of said image data occupying said buffer memory, and outputting buffer information related to the detected code amount of said image data; and a recording step of recording said coded image data and said buffer information on a recording medium.

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17. A storage medium holding a computer program for realizing by a computer an image data recording method

for recording new image data, encoded by intra-frame coding and inter-frame prediction coding, on a tape type recording medium on which coded image data is already recorded, wherein said program having program

5 code corresponding to:

a coding step of encoding image data using a buffer memory;

a buffer occupation amount detection step of, upon coding at said coding step, detecting a code
10 amount of said image data occupying said buffer memory, and outputting buffer information related to the detected code amount of said image data; and
a recording step of recording said coded image data and said buffer information on said tape type
15 recording medium.